



# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

Sue MacIntosh Cutting Edge Formulations, Inc. 3057 Summer Oak Place Buford, GA 30518

AUG 1 3 2014

Subject:

Label Amendment – Multiple Label Revisions

Avenger AG Burndown Herbicide

EPA Reg. No. 82052-4

Application dated – January 23, 2014

Dear Ms. MacIntosh:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one (1) copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

If you have any questions regarding this letter, please contact Maggie Rudick at (703) 347-0257 or rudick.maggie@epa.gov.

Sincerely,

Kable Bo Davis Product Manager 25 Herbicide Branch

Registration Division (7505P)

Sub-label B:

**GROUP HERBICIDE** 

# Avenger<sup>TM</sup> AG Burndown Herbicide

# For control of Grasses and Broadleaf Weeds (both Annual and Perennial) In Crop and Non-Crop Areas

OTHER INGREDIENTS: 45% Total 100%

### KEEP OUT OF REACH OF CHILDREN **CAUTION**



#### FOR ORGANIC PRODUCTION

Net Contents: 1, 5 [or 2½ or 55] Gallons

{Front panel: optional marketing claims may be used on any panel}

- OMRI or other organic listing logo
- Non-selective weed killer: controls most weeds, grasses & broadleaves
- Contains citrus oil
- Fast acting
- Made from oranges
- Patented formula
- Clean citrus scent
- Does not stain brick, concrete or pavement

[Label may include graphic representation consistent with labeled product use; e.g., "before" and "after" illustrations of use on Citrus canker.]

EPA Reg. No. 82052 - 4 EPA Est. No. 82052-GA-1

#### Manufactured by:

Cutting Edge Formulations, Inc. 3057 Summer Oak Place Buford, GA 30518

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ACCEPTED

AUG 1 3 2014

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under REPA Reg No. 82052-4

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing.

FIRST AID				
If on Skin or	Take off contaminated clothing.			
Clothing:	• Rinse skin immediately with plenty of water for 15-20 minutes.			
*	• Call a poison control center or doctor for treatment advice.			
If in Eyes:	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lens, if present, after the first 5 minutes. Then continue rinsing eye.			
•	• Call a poison control center or doctor for treatment advice			
Have the produ	ct container or label with you when calling a poison control center or			
doctor, or going	for treatment. For emergency information concerning this product, call			
the National Pe	sticide Information Center (NPIC) at 1-800-858-7378 seven days a week,			
6:30 am to 4:30	pm Pacific Time. During other times, call your poison control center at			
1-800-222-1222	2.			

Personal Protective Equipment (PPE): Applicators and other handlers must wear:

- Long sleeved shirt and pants
- Shoes plus socks
- Protective eyewear
- Chemical resistant gloves such as nitrile rubber, polyvinlyl chloride (PVC) and viton.

Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### **User Safety Recommendations**

User should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if product gets inside. Then wash thoroughly and put on clean clothing.

#### PHYSICAL AND CHEMICAL HAZARDS

Combustible: Do not use or store near heat or open flame.

#### **ENVIRONMENTAL HAZARDS**

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash water or rinsate.

#### **DIRECTIONS FOR USE**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Do not use this product until you have read the entire label. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirement specific to your State or Tribe, consult the State or Tribe agency responsible for pesticide regulation.

#### Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

At the 20% dilution rate, do not apply within 7 days of harvest (7 day PHI).

PPE required for early entry to treated areas (that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water), is:

- Long sleeved shirt and pants
- Shoes plus socks
- Protective eyewear
- Chemical resistant gloves such as nitrile rubber, polyvinyl chloride (PVC) and viton.

#### Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Product Information: Avenger AG is a broad spectrum weed killer that contains a citrus extract. It is non-selective and controls most annual and perennial weeds, both grasses and broadleaves. For best performance, complete coverage of target weeds is necessary. The product does not translocate. It will affect only those portions of plants that are coated with the spray solution. Spray until thoroughly wet.

Weed size influences product efficacy as performance is improved on smaller weeds. Targeted weeds should be six inches in height or less.

Environmental Conditions: Avenger AG is effective over a wide range of environmental conditions. Cool weather may slow the activity of Avenger AG. For best results, spray when ambient high temperatures are expected above 50°F and lows above freezing. On cooler days, spray during the warm part of the day.

Allow heavy dew to evaporate prior to Avenger AG applications. Do not apply if windy conditions exist or rain is expected within 2 hours.

**Spray Drift Management:** Do not allow the herbicide solution to contact desirable vegetation as small amounts can cause severe damage to crops and other desirable plants.

Mixing of Avenger AG: Fill the spray tank ½ full with clean water. Add Avenger AG while agitating. Then fill remainder with water.

Tank Mixing of Avenger AG: Fill the spray tank ½ full with clean water. Add any dry formulations and then liquid formulations to the tank. Add Avenger AG while agitating. Then fill remainder with water.

Tank Mix Combinations: When Avenger AG is used in combination with any other products, refer to the respective product labels for rates and methods of application, proper timing, restrictions and precautions.

Compatibility Testing: If the compatibility with another product is not known, a jar test or physical compatibility study should be conducted before tank mixtures are made.

#### **Application Instructions and Rates**

Mix this product in clean water and apply to the foliage of vegetation to be controlled. Spray until weeds are thoroughly wet. Because the underside of the weed leaf may be more susceptible, side sprays are recommended. Do not apply this product through any type of irrigation system or by aerial application.

#### **Broadcast Applications**

Apply Avenger AG at a ratio of 1 part Avenger AG into 6 parts of water (see Table 1). Spray until thoroughly wet.

Final Spray Volume	Amount of Avenger AG 1:6 ratio (14% dilution rate)*	Amount of Water	
l Gai	20 fl. oz.	108 fl. oz.	
60	8½ gal	51½ gal	
100 Gal	14 gal	86 gal	

\*Percent Avenger AG Burndown Herbicide in water. (Equivalent to 8% d-limonene active ingredient in water.)

#### **Spot Applications** (Spot Treatments)

In cool situations or for tough to kill weeds, a more concentrated spray of d-limonene may be needed. In such situations, a 20% dilution rate of Avenger AG, a ratio of 1 part Avenger AG into 4 parts of water may be used up to one (1) week before harvest (see Table 2).

Control or Suppression of Emerged Weeds in Row Middles (banded treatment) and Between Vines and Trees. Apply Avenger AG at a 14-20% dilution rate.

AVOID CONTACT WITH CROP – Intentional or accidental contact (including drift) of Avenger AG with the crop may result in severe damage or loss of the crop.

Apply by directing spray between the rows and using hooded sprayers to prevent spray contact with crop plants. Keep hoods adjusted to insure adequate contact with weeds while shielding the crop from the herbicide. To minimize drift, do not use nozzles or nozzle configurations with produce fine droplets (mist).

#### Pre-harvest Desiccation of Vegetable Vines

Apply Avenger AG at a 14-20% dilution rate to aid in the desiccation of vegetable vines prior to harvest operations. More than one application may be necessary to obtain sufficient desiccation.

Table 2 - Spot Applications: Mixing Rates for 1:4 Dilution					
Final Spray Volume	Amount of Avenger AG 1:4 ratio (20% dilution rate)*	Amount of Water			
1 gal	26 fl. oz.				
60 gal	60 gal 12 gal				
100 gal 20 gal		80 gal			

<sup>\*</sup>Percent Avenger AG Burndown Herbicide in water. (Equivalent to 11% d-limonene active ingredient in water.)

#### **Directions for Minimizing Spray Drift:**

Spray directly on weeds (or apply with hooded spray equipment to prevent the spray from contacting crop.) Use equipment to direct spray on to the weeds. Do not use mist blowers or any other application techniques, which may result in drift on to desirable vegetation. Do not allow spray solution to drip, splash or drift on to desirable vegetation; small amounts can cause severe damage to crops. Use low drift, low pressure nozzles.

These procedures will also reduce the potential for off-target drift and for crop injury:

- Spray hoods must be operated on the ground or skimming across ground surface.
- Operate at ground speeds of no greater than 5 miles per hour to avoid bouncing of the spray hoods.
- Apply when wind speeds are 10 miles per hour or less.

Avenger AG is intended for non-selective weed control in and around all crop and non-crop areas

#### **CROPS**

			May 2017
Cron	Broadcast or Banded	Spot Treatment	Restrictions and
Crop	Treatment Instructions	Instructions	Other Comments
Bearing and Non-	Apply at a 14-20% dilution rate	In cool situations or for tough to	Restrictions: Do not apply
	of Avenger AG.	kill weeds, a more concentrated	this product through any
Bearing Tree, Vine and	of Attonger Ato.	spray of d-limonène may be	type of irrigation system or
Berry Crops, including:		needed. In such situations, spot	by aerial application.
Berries*	Do not exceed 8.5 gallons of	treatments with a 20% dilution	by acriai application.
Citrus	product per acre per application.	rate of Avenger AG, a ratio of 1	Spray until weeds are
Grapes _	product per acre per application	part Avenger AG into 4 parts of	thoroughly wet.
(wine, table, raisin)		water may be used (see Table 2).	thoroughly wet.
Nuts	,	water may be used (see Table 2).	Follow distrations for
Olives		De not sugged 0.5 college of	Follow directions for
Promegranate	· · · ·	Do not exceed 8.5 gallons of product per acre per application.	Minimizing Spray drift.
Pome Fruit		product per acre per apprication.	Avoid contact of herbicide
Stone Fruit	. *		
			solution, spray drift or mist
			with crop foliage, green
'	,	,	bark of trunk or branches,
		· ·	fruit or other parts of trees,
			canes and vines.
Vegetable Crops,	Make pre-emergence or at	In cool situations or for tough to	Restrictions: Do not apply
including:	planting applications of Avenger	kill weeds, a more concentrated	this product through any
Artichokes	AG, or apply to burn down	spray of Avenger AG may be	type of irrigation system or
Asparagus	winter foliage; applications must	needed. In such situations, spot	by aerial application.
Brassica (cole)	be made before seedling	treatments with a 20% dilution	
Bulb Vegetables	emergence to avoid severe	rate of Avenger AG, a ratio of l	Spray until weeds are
Curcurbits	injury. Allow at least 2 days	part Avenger AG into 4 parts of	thoroughly wet.
Fruiting Vegetables, such	between application and	water may be used (see Table 2).	
as: tomato and pepper	transplanting.		Follow directions for
Leafy Vegetables		Do not exceed 8.5 gallons of	Minimizing Spray drift.
Legume Vegetables	Apply at a 14-20% dilution rate	product per acre per application.	
Root and Tuber Vegetables	of Avenger AG.		Avoid contact of herbicide
Strawberries	· ·	,	solution, spray drift or mist
i	Do not exceed 8.5 gallons of	·	with crop foliage.
	product per acre per application.		<u> </u>
Herb and Spices:	Make pre-emergence or at	In cool situations or for tough to	Restrictions: Do not apply
_	planting applications of Avenger	kill weeds, a more concentrated	this product through any
	AG, or apply to burn down	spray of d-limonene may be	type of irrigation system or
	winter foliage; applications must	needed. In such situations, spot	by aerial application.
	be made before seedling	treatments with a 20% dilution	•
	emergence to avoid severe	rate of Avenger AG, a ratio of I	Spray until weeds are
	injury. Allow at least 2 days	part Avenger AG into 4 parts of	thoroughly wet.
·	between application and	water may be used (see Table 2).	
	transplanting.		Follow directions for
	•	Do not exceed 8.5 gallons of	Minimizing Spray drift.
• • •	Apply at a 14-20% dilution rate	product per acre per application.	
<b>'</b>	of Avenger AG.	,	Avoid contact of herbicide
	•		solution, spray drift or mist
and the second	Do not exceed 8.5 gallons of	·	with crop foliage.
	product per acre per application.		·
Non-Crop Areas:	Apply at a 14-20% dilution rate	In cool situations or for tough to	Restrictions: Do not apply.
Including borders,	of Avenger AG.	kill weeds, a more concentrated	this product through any
driveways, roadways,		spray of Avenger AG may be	type of irrigation system or
sidewalks, around	Do not exceed 8.5 gallons of	needed. In such situations, spot	by aerial application.
	product per acre per application.	treatments with a 20% dilution	The state of the s
mature landscaping,		rate of Avenger AG, a ratio of 1	Spray until weeds are
trees, shrubs, foliage		part Avenger AG into 4 parts of	thoroughly wet.
and ornamentals,		water may be used (see Table 2).	
around buildings, in		, ` '	Follow directions for
greenhouses and		Do not exceed 8.5 gallons of	Minimizing Spray drift.
nurseries, and around	•	product per acre per application.	· · · · · · · · · · · · · · · · · · ·
flower beds.			Avoid contact of herbicide
nower beas.		· ·	solution, spray drift or mist
			with non-target foliage,
· .	•		green bark of trunk or
	,		branches, fruit or other
· ·		· ·	parts of trees, canes and
	•		vines.
		L	

<sup>\*</sup> Not for use in California on berries of any kind.

#### STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

#### PESTICIDE STORAGE

Store at room temperature. Reclose container of unused portions of Avenger AG.

#### PESTICIDE DISPOSAL

To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

#### **CONTAINER HANDLING**

[Plastic containers with capacities equal to or less than 5 gallons:] Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinance. If burned, stay out of smoke.

[Plastic containers with capacities greater than 5 gallons:] Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinance. If burned, stay out of smoke.

#### Conditions of Sale and Warranty

The **Directions For Use** of this product reflects the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result, because of factors such as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of Cutting Edge Formulations or the Seller. All such risks are assumed by the Buyer.

To the extent consistent with applicable law, Cutting Edge Formulations warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above. To the extent consistent with applicable law, Cutting Edge Formulations makes no other express or implied warranty of fitness or merchantability or any other express or implied warranty. To the extent consistent with applicable law, in no case shall Cutting Edge Formulations or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product. To the extent consistent with applicable law, Cutting Edge Formulations and the Seller offer this product, and the Buyer and user accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only be agreement in writing signed by a duly authorized representative of Cutting Edge Formulations.